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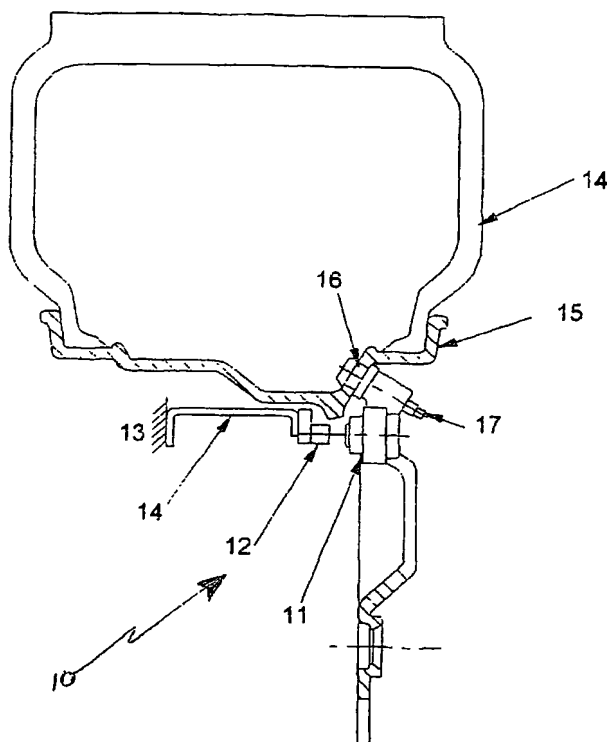
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(54) Title: **TIRE PRESSURE MONITORING SYSTEM AND METHOD OF USING SAME**



(57) Abstract: A tire pressure monitoring system (10) including a magnetic actuator (11) having an air pressure transducer therein for generating a signal proportional to the interior tire air pressure. The actuator (11) operates parallel to the axle to alleviate speed sensitivity. Magnetic actuator (11) communicates with a stationary field sensor (12) permanently mounted on the vehicle at a close proximity to the magnetic actuator (11). The magnetic actuator (11) rotates about the access with the wheel (15), and for every revolution of the wheel (15), comes in to close proximity to the sensor (12) at least once, and communicates information about the internal tire pressure to the driver.

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GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Declarations under Rule 4.17:**

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

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## INTERNATIONAL SEARCH REPORT

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<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC(7) : B60C 23/02 US CL : 73/146.5 According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) U.S. : 73/146.5, 146.2, 146.3, 146.8, 146; 340/441-447  Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EAST		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6,591,668 B1 (BECHERER et al) 15 July 2003 (15.07.2003), entire patent.	1-17
A	US 4,131,877 A (STEWART et al) 26 December 1978 (26.12.1978), entire patent.	1-17
A	US 4,570,152 A (MELTON et al) 11 February 1986 (11.02.1986), entire patent.	1-17
A	US 6,230,556 B1 (MALINOWSKI) 15 May 2001 (15.05.2001), entire patent.	1-17
A	US 5,231,391 A (RIGAUX) 27 July 1993 (27.07.1993), entire patent.	1-17
A	US 6,278,363 A (BEZEK et al) 21 August 2001 (21.08.2001), entire patent.	1-17
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
<b>* Special categories of cited documents:</b>		
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"P" document published prior to the international filing date but later than the priority date claimed		
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Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703)305-3230		Authorized officer <i>Oredelle Jackson</i> Jose Dees Telephone No. 571-272-1569